



HF Happenings



South African Radio League * Suid-Afrikaanse Radioliga
Member Society of the International Amateur Radio Union since 1925

www.sarl.org.za www.iaru.org www.iaru-r1.org

March

2 and 3 - ARRL DX SSB Contest
3 - SARL Hamnet 40 m contest
9 and 10 - RSGB Commonwealth Contest
10 - Cape Argus Bicycle tour
16 and 17 - SARL VHF/UHF Contest
17 - St Patrick's Day
20 - Inland schools close; Autumn Equinox
21 - Human Rights Day
22 - Coastal schools holiday
24 - Palm Sunday
26 - Pesach starts
28 - Coastal schools close
29 - Good Friday
30 and 31 - CQ WPX SSB Contest
30 - Two Oceans marathon
31 - Easter Sunday

April

1 - Family day; Pesach ends
4 - SARL 80 m QSO Party
6 - RaDAR Contest
8 - Coastal schools open
9 - Inland schools open



Issue: 548

March 2013

Bob Bruninga, WB4APR, takes APRS underground

Bob Bruninga, WB4APR, led a group of radio amateurs earlier this month to Mammoth Cave -- the world's longest known cave system - at Mammoth Cave National Park in Kentucky to test how the Automatic Packet Reporting System (APRS) can be used as a means to extend radio communications underground. "When used underground, VHF and UHF radio's can only work within a few hundred feet of each other and only when in the line of sight of another radio," Bruninga explained. "This makes routine use of these radios of little value when underground; however, when APRS radios act as packet digipeaters, these few hundreds of feet can be extended by an order of magnitude." Bruninga, a senior research engineer at the US Naval Academy, developed APRS as a global, on-air protocol for supporting handheld position reporting and text messaging via VHF radio. Read more here <http://www.arrl.org/news/bob-bruninga-wb4apr-takes-aprs-underground>

The RBN...and You

Following the ARRL DX CW contest, there was a lot of online discussion about the perceived quality of spotting information generated by CW Skimmers <http://www.dxatlas.com/cwskimmer/> operating around the world and relayed to the world-wide spotting networks. While the information may not have been any worse than the usual human-generated false data, its volume made it more noticeable. Since many Skimmer-generated spots came through the Reverse Beacon Network <http://www.reversebeacon.net/>, I offered this space to RBN leader, Pete N4ZR, to discuss the issue.
73, Ward NØAX

I am delighted to be a guest writer for this issue because of the large audience of exactly the folks I hope to reach.

Let me begin by clarifying a little of what the RBN is and how it works. The spots forwarded by the RBN are collected by over 200 volunteer "Skimmers" worldwide. Each "beacon" is set up and paid for by individuals, and their set-ups range from simple single-band Softrocks to the sophisticated 7-bands-at-once QS1R, used by some 60 of our most active contributors. Antennas are anything from simple dipoles to the massive antenna farms at W3LPL and K3LR.

Throughout its lifetime, the RBN has functioned basically as a "mother ship," collecting all of these spots and redistributing them through two Telnet nodes, which in turn provide them to hundreds of DX cluster nodes worldwide. We also provide raw data for research and tools for comparing signals, but spots are our main line of business.

(Continued on page 2)

(Continued from page 1)

We are very concerned about the quality of the spots we provide. Each "Skimmer" is constantly being told how well the frequencies being reported compare with reference stations. When we notice (or are told about) stations with problems, we go to work with them to deal with the problem. After the ARRL DX CW contest, for example, we noticed that a couple of prolific Skimmers had image problems - the same station spotted simultaneously on two frequencies. We worked with the owners to resolve those problems quickly, and the RBN will be the better for it.

But what about busted spots? Well, under ideal conditions, I believe the Skimmer software's decoding is probably more than 99.9 percent accurate, far better than human spotters. But when you have 100+ Skimmers, operating under far from perfect circumstances, all contributing spots to a common stream, which is forwarding around 2 million spots in a 24-hour period, there will be a fair amount of junk. We confronted this early on, and decided to rely on users constructing their own filters - more to come on this. We are currently evaluating whether this policy can be successful and may decide to make two streams available - one filtered and the other raw.

Okay, on to the "you" part. As a user of RBN spots, a lot of the raw stream will be unusable - what do you care what someone on the other side of the planet is hearing? A few of the big multis will want to see everything and do their own filtering, but for the rest of us, limiting the spots you see to those you can probably hear makes sense. I use a node that has AR Cluster Version 6 software installed, and can easily limit spots to those from Skimmers in the states surrounding my QTH. AR also has a very handy filter ("Unique>x") that only reports spots that meet your other conditions and have been heard by more than "x" Skimmers world-wide. Use a combination of these filters and you will virtually eliminate busted spots, even late in the contest when you have worked the bands dry of run stations.

For a contester who wants to be spotted often and correctly, here are a few simple suggestions. The use of the keywords "CQ" and "Test" has already been discussed at length elsewhere, but remains critical. You can even use this knowledge to reduce the size of your pileups, by omitting the keywords sometimes, using them at others.

Whatever you do, send everything at the same speed, and be sure to use correct spacing - if you send N4ZRTEST instead of N4ZR TEST, or send the "TEST" 15 wpm faster, you'll deserve what you get, or don't. If your call sign is unusual, in length or makeup of the prefix, you may need to send your call sign two or more times during each CQ - this is because CW Skimmer uses a table of prefixes and suffix lengths to determine how "picky" to be about what it copies - an odd call takes more validation before it is accepted.

One thing that affects both users and Skimmers is the various sources of spurious signals. If you are operating and Skimming at the same time, you will need to disable your Skimmer receiver during transmit, or it will spot all sorts of weird variations of your call sign because of overload. If you want to be spotted on your actual frequency, make sure that your signal is free of key clicks and harmonics.

That is pretty much the whole story. I hope it is helpful. 73, Pete N4ZR

*Have you done
anything this week
to Promote
Amateur Radio?*



Word to the Wise

Read the rules FIRST!

SARL 80 m QSO Party

The aim of this contest is to create an interest in and activity on the 80 m band. It is a phone only contest on Thursday 4 April 2013 from 17:00 to 20:00 UTC.

Only frequencies in the segment 3 603 to 3 650 and 3 700 to 3 800 kHz may be used and the exchange is call signs, a RS signal report and the operator's name.

You can take part as a Single Operator station or a Short Wave Listener (SWL).

You earn 10 points for every contact with a South African station and 15 points for every contact with a station outside South Africa.

Log sheets shall be sent by e-mail to zs5lp@vodamail.co.za and the closing date for your log submissions is 12 April 2013.

RaDAR Contest

The RaDAR contest is an event aimed at promoting the use of Rapidly Deployable Amateur Radio stations.

This contest is for all licensed radio amateurs. A choice is made prior to the contest to participate in one of the defined categories. The points system is so structured as to encourage portable operation especially moveable stations.

The contest will be on the air on Saturday 6 April 2013, starting at 14:00 UTC and ending at 18:00 UTC - 4 hours = Approximately 2 during the day and 2 at night.

All amateur bands, besides the WARC bands, are allowed including cross band contacts via amateur radio satellites. Modes - CW, SSB, AM, FM or any digital mode. QSOs via terrestrial repeaters will NOT be allowed.

The suggested HF Calling frequencies are CW 1 836, 3 560, 7 030, 14 080, 21 080 and 28 060 kHz; SSB 1 845, 3 690, 7 090, 14 240, 21 350 and 28 360 kHz (ZU licensees have access to 80, 40 and 10 m); PSK 1 838 - 1 840, 3 580 - 3 582, 7 040 - 7 047 and 14 070 - 14 072 kHz; RTTY 3 582 - 3 620, 7 042 - 7 060 kHz and 14 080 - 14 099 kHz (check the IARU Region 1 HF Band plan for more detail).

The exchange is call sign, name, RS(T) report, QTH and grid locator.

Note the grid locator can change as RaDAR operators are allowed to move position at any time. The grid locator of six digits is acceptable but should preferably be accurate to 10 digits. If the grid locator is not known, then some other information that could describe the location, e.g. Mabula Lodge, 40 km west of Warmbaths

Each QSO counts 1 point and 1 QSO per mode, per band / satellite, per call sign is allowed.

The following multipliers are applicable to determine the final score.

a. Category:

Fixed RaDAR station - at home / portable away from home

Moving RaDAR station - on foot / in a car, on a motorcycle or bicycle

b. Category multiplier:

X 1 - RaDAR Fixed station (at home or in another building)

X 2 - RaDAR Field station (portable away from home)

X 3 - Moving RaDAR station, car / motorcycle / bicycle - minimum 5 km

X 4 - Moving RaDAR station, on foot - minimum 1 km

Note: Moving RaDAR stations can move at any time but are required to move to the next destination after five contacts have been made from the

(Continued on page 4)

*"... promoting
the use of
Rapidly
Deployable
Amateur Radio
stations."*



(Continued from page 3)

present location. The move needs to cover the required distance before further contacts are allowed to be made.

c. Power multiplier: The power multiplier that applies is determined by the highest power output of any of the transmitters used during the contest - 5 watts or less the power multiplier is six (6); 6 to 50 watts, the power multiplier is four (4) and 51 watts or greater, the power multiplier is two (2).

Bonus points (All categories). 5 Points (equivalent to five QSOs) for a minimum of one satellite or any digital mode QSO involving a computer. (For clarity: thereafter 1 point per Satellite / Digital modes QSO)

Log Sheets must be sent to edleighton@gmail.com and the closing date for logs is 22 April 2013. A photo of the station (JPG format) MUST accompany every log entry.

CQ WW WPX SSB Contest

The CQ WW WPX SSB Contest takes place from 00:00 UTC Saturday 30 to 23:59 UTC Sunday 31 March. The objective is for amateurs world wide to contact as many amateurs and prefixes as possible during the contest period.

The period of operation is 48 hours, single operator stations may operate 36 of the 48 hours - off times must be a minimum of 60 minutes during which no QSO is logged. Multi-operator stations may operate the full 48 hours.

Only the 160, 80, 40, 20, 15 and 10 bands may be used. Observance of established band plans is strongly encouraged. The exchange is a RS report plus a progressive contact serial number starting with 001 for the first contact. Note: Multi-Two and Multi-Unlimited entrants use separate serial number sequences on each band.

Get the complete set of rules at <http://www.cqwpw.com/rules.htm>

African DX

The Gambia, C5. Pedro, AA9HX / ON7WP just received his permanent 2013 license and will be active again from The Gambia using the call sign C5WP. He will be active from 20 till 27 March from the Kololi area and also from inland Buntu village.

Pedro will also be active for two weeks in August, dates TBA. He reports that this time he will have multiple dipole antennas and will operate from a three story building, which is better than the last time where he was lacking high points. He will use a Yaesu FT-897 with batteries so he can operate when the electricity shuts down [33% of the time..]. Pedro previously operated from 11 to 18 November 2012 as part of his effort to set up a locally managed tourist organisation helping locals to gain their own money. QSL only direct to ON7WP address. Please enclose SAE 2 US \$ postage and (if you can afford it) some small sponsoring to help the organisation and pay for the postage. All money goes to the locals. Website: www.africajeepsafari.com/

Somalia, T5. Between 23 March and 3 April 2013, Tefik Aydin, TA1HZ will be travelling to Mogadishu, Somalia, on a humanitarian mission with Yeryuzu Doktorlari (<https://yyd.org.tr/>). It will be a solo DXpedition within a humanitarian effort

(Continued on page 5)

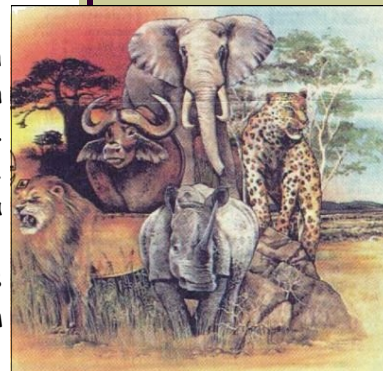
"..single operator stations may operate 36 of the 48 hours..."



(Continued from page 4)

and he will be doing his primary job as a doctor. In his spare time he will be on all HF bands, depending on band conditions, most probably as T5TC (call sign not yet assigned). He will be using a Kenwood TS-480 with a Windom antenna. QSL cards will be printed late May. QSL via TA1HZ, with details at QRZ.com. Any donations for the hospital and food distribution centres can be sent via <https://www.yyd.org.tr/bagis/index.php>

Tevfik, TA1HZ, will be active as T5TC during the CQ WW WPX SSB Contest (30 and 31 March) as a Single-Op/All-Band/Low-Power entry from Mogadishu, Somalia, CQ zone 37. QSL via TA1HZ.



Tanzania, 5H. Bodo, DF8DX, will be active from Tanzania as 5H1DX between 20 and 28 April 2013. Included in this trip will be activity from several IOTAs, including Pemba island (AF-063, WLOTA 1437). QSL via DF8DX. More details to follow.

Mozambique, C9. Look for Gert, ZS6AYU, to be active holiday style as C91GR from Bilene, Gaza province, Mozambique, between 7 and 11 May 2013. Plans are to be active on 40 to 10 metres CW only, with 350 to 400 W into a R7000 vertical antenna. QSL via his home call, direct or SARL bureau.

African Islands

Ascension Island. ZD8. Mick, G1EUZ (RAFARS #1848), will be active on Ascension Island (AF-003, WLOTA 1491) as ZD8RAF from 18 to 22 March 2013. He will use an IC-7000, LDG IT-100, Alinco DM-W330MW PSU, Spiderbeam 12 m pole and a vertical or horizontal dipole. QSL via home call, RSGB bureau or direct with SAE sufficient postage.

Reunion Island. Guy, F5MNV, will be active as FR/F5MNV from Reunion Island (AF-016, DIFO FR-001, WLOTA 1812, WWFF FFF-011) between 6 and 29 April 2013. He will be active on the HF bands, CW only. QSL via home call.

Magnetic loop remote tune

Colin Shaw M5FRA/G8FRA has built a remote tuner for his magnetic loop and documented it on his website

He writes, "Last year, I used a magnetic loop antenna for QRP/P. It worked very well but the major downside was the tuning. Standing next to the loop and tuning manually was not much fun as the human body detunes a loop. So the method had to be tune, stand back, look at antenna meter, tune again, stand back etc etc. It also meant that a QSY was very tedious. This year I want a remote tuning system."

Read the well illustrated article at <http://www.m5fra.org.uk/2013/02/24/magnetic-loop-remote-tune/>

Operating Tip

Be prepared - run through a station checklist well before the contest, including for the operator! Then be ready for problems during the contest because Murphy is never far away. Multi-operator station hosts know this well - sometimes there are repairs that have to be done during the race! K3LR had ring rotators freeze up with icing during ARRL DX Phone - the rotators were freed with torches on the



(Continued on page 6)

This week's contests
compiled by Bruce
Horn, WA7BNM. The
period covered is 11 to
18 March 2013



(Continued from page 5)

tower at midnight - three times during the weekend, in fact! Every big station host deserves a tip of the contesters' cap in recognition of and appreciation for what keeps those state-of-the-art signals sounding so superb.

Contest Calendar

BARTG HF RTTY Contest

02:00 UTC 16 March to 02:00 UTC, Mar 18

Mode: RTTY

Bands: 80, 40, 20, 15, 10 m

Classes: Single Op Expert All Band; Single Op All Band; Single Op All Band 6 Hours; Single Op Single Band; Multi-Single; Multi-Multi; SWL

Max operating hours: Single Op: 30 hours with at least 3 hour rest period; Single Op 6 Hours: 6 hours; Multi-Op: 48 hours

Exchange: RST, serial no and 4-digit time (UTC)

Work stations: Once per band

QSO Points: 1 point per QSO

Multipliers: DXCC countries once per band; JA, W, VE and VK areas once per band; Continents once regardless of band

Score Calculation: Total score = total QSO points x total country/area mults x continents

Submit logs by: 27 April 2013

E-mail logs to: logs@bartg.org.uk

Mail logs to: (none)

Find rules at: <http://www.bartg.org.uk/documents/contests/hf/rules/bartg-hf-rules-2013.pdf>

Russian DX Contest

12:00 UTC 16 March to 12:00 UTC 17 March

Mode: CW, SSB

Bands: 160, 80, 40, 20, 15, 10 m

Classes: Single Op All Band Mixed (QRP/Low/High); Single Op All Band CW (Low/High); Single Op All Band SSB (Low/High); Single Op Single Band Mixed; Multi-Single; Multi-Two; SWL

Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts

Exchange: Ru: RS(T) and 2-character oblast; non-Ru: RS(T) and serial no
Work stations: Once per band per mode

QSO Points: Ru Stations: 2 points per QSO with same country same continent; 5 points per QSO with same country different continent; 3 points per QSO with different country same continent; 5 points per QSO with different continent; non-Ru Stations: 10 points per QSO with Ru station; 2 points per QSO with same country; 3 points per QSO with different country same continent; 5 points per QSO with different continent; 5 points per QSO with /MM

Multipliers: Each oblast once per band; Each country once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 31 March 2013

E-mail logs to: logs@rdxc.org

Upload log at: <http://www.rdxc.org/asp/pages/wwwlog.asp>

Mail logs to: (none)

Find rules at: <http://www.rdxc.org/asp/pages/rulesg.asp>

Oklahoma QSO Party

13:00 UTC 16 March to 01:00 UTC 17 March and 13:00 - 19:00 UTC 17 March

Mode: CW/Digital, Phone

Bands: 80, 40, 20, 15, 10, 6 m

Classes: Single Op (QRP/Low/High); Multi-Single; Mobile Single Op; Mobile Assisted; Mobile Unlimited

Max power: HP: >100 watts; LP: 100 watts; QRP: 5 watts

Exchange: OK: RS(T) and County; non-OK: RS(T) and state, province or country

(Continued on page 7)

(Continued from page 6)

Work stations: Once per band per mode
QSO Points: 2 points per phone QSO; 3 points per Digital/CW QSO; 500 points for each station worked on 3 different bands, additional 1 000 points if worked on 5 different bands; non-OK: 500 points for each OK mobile worked in 5 different counties

Multipliers: OK: Each state, province, OK county, DXCC countries once; non-OK: OK counties once

Score Calculation: Total score = (total QSO points x total mults) and bonus points

Submit logs by: 16 April 2013

E-mail logs to: okqlogs@suddenlink.net

Mail logs to: Oklahoma QSO Party, Connie Marshall, K5CM, 2991 S. Woodland Rd., Muskogee, OK 74403, USA

Find rules at: <http://k5cm.com/okqp2013rules.pdf>

Virginia QSO Party

14:00 UTC 16 March to 02:00 UTC 17 March and 12:00 - 24:00 UTC 17 March

Mode: CW, Phone, Digital

Bands: All, except WARC

Classes: Single Op - fixed, mobile or expedition - high, low or QRP - multi-band or single-band - CW, phone, digital or mixed; Multi-Single - fixed, mobile or expedition - high, low or QRP - multi-band or single-band - CW, phone, digital or mixed; Multi-Multi - fixed, mobile or expedition - high, low or QRP - multi-band or single-band - CW, phone, digital or mixed

Max power: HP: >150 watts; LP: 150 watts; QRP: 5 watts

Exchange: VA: Serial no and county; non-VA: Serial no and state, province or "DX"

Work stations: Once per band per mode

Score Calculation: (see rules)

Submit logs by: 15 April 2013

E-mail logs to: vqp@verizon.net

Mail logs to: VA QSO Party, Call Box 599, Sterling, VA 20167, USA

Find rules at: <http://www.qsl.net/stirling/>

[VA QSO Party/2013 VQP/2013 VQP Rules.html](http://www.feldhellclub.com/VA_QSO_Party/2013_VQP/2013_VQP_Rules.html)

Feld Hell Sprint

16:00 - 18:00 UTC 16 March

Mode: Feld Hell

Bands: 160, 80, 40, 20, 15, 10 m

Classes: (none)

Max power: Standard: 100 watts; QRP: 5 watts

Exchange: (see rules)

Work stations: Once per band

QSO Points: (see rules)

Bonus Points: (see rules)

Multipliers: (see rules)

Score Calculation: (see rules)

Submit logs by: 23 March 2013

E-mail logs to: kj8o@wowway.com

Mail logs to: (none)

Find rules at:

<https://sites.google.com/site/feldhellclub/Home/contests/sprint-rules>

North American SSB Sprint

00:00 - 04:00 UTC 17 March

Mode: SSB

Bands: 80, 40, 20 m

Classes: Single Op - QRP, low or high

Max operating hours: 4 hours

Max power: HP: 1 500 watts; LP: 100 watts; QRP: 5 watts

Exchange: other station's call, your call, serial no, your name and your state, province or country

Work stations: Once per band

QSO Points: NA station: 1 point per QSO; non-NA station: 1 point per QSO with an NA station

Multipliers: Each US state (including KL7) once; Each VE province once; Each North American country (except W/VE) once

Score Calculation: Total score = total QSO points x total mults

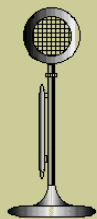
Submit logs by: 23 March 2013

E-mail logs to: (see rules, web upload preferred)

Upload log at: <http://www.ncjweb.com/sprintlogsubmit.php>



(Continued on page 8)



(Continued from page 7)

Find rules at: <http://www.ncjweb.com/sprintrules.php>

Run for the Bacon QRP Contest

01:00 - 03:00 UTC 18 March

Mode: CW

Bands: 160, 80, 40, 20, 15, 10 m

Classes: Single Band; All Band

Max power: 5 watts

Exchange: RST, state, province or country and member no or power

Work stations: Once per band

QSO Points: 1 point per QSO with non-member; 3 points per QSO with member on same continent; 5 points per QSO with member on different continent

Multipliers: Each state, province or country once; Multiply mults by 2 if >50 members worked

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 24 March 2013

E-mail logs to: (none)

Upload log at: <http://fpqrp.org/pigrun/autolog.php>

Mail logs to: (none)

Find rules at: <http://fpqrp.org/pigrun/>

Bucharest Contest

18:00 - 20:59 UTC 18 March

Mode: CW, SSB, PSK31

Bands: 80, 40m

Classes: Single Op QRP - CW, SSB, Dig or mixed; Single Low Power (LPI) - CW, SSB, Dig or mixed; Multi-Op Low Power (LPG) - CW, SSB, Dig or mixed; SWL

Max power: LP: 100 watts; QRP: 5 watts

Exchange: YO: RS(T), QSO no and sector or county; non-YO: RS(T), QSO no and country code

Work stations: Once per mode

QSO Points: 2 points per QSO: YO3 - YO3 or YO - YO or YO - Foreign; 4 points per QSO: YO3 - YO or YO - YO3 or YO3 - Foreign

Multipliers: Each YO county; Each YO3 sector; each country code

Score Calculation: Total score = total score of each segment (total QSO points x total mults)

Submit logs by: 23:59 UTC 28 March 2013

E-mail logs to: fenyo3jw@yahoo.com

Mail logs to: (none)

Find rules at: <http://bucuresti.ynos.ro/cb/index.php/en/>

Frequency Change for Amateur Radio Today on 31 March

On 31 March some of the frequencies on which the SARL's programme is transmitted will change. Here is the complete HF transmit schedule.

Sundays 10:00 - 11:00 CAT (08:00 - 09:00 UTC) for Southern Africa the frequency will remain the same on 7 025 kHz, however for East and Central Africa listeners the frequency will change to 17 570 kHz.

On Mondays the programme is repeated at 16:30 UTC / 18:30 CAT in South Africa, on a new frequency of 3 230 kHz. For more information about podcast and other relays and retransmissions visit www.sarl.org.za and select Amateur Radio Today from the menu. From the web pages you can also download the programme in a high and low res format for retransmission on local repeaters or for your own listening pleasure.

Reception report, comment and suggestions are always invited. Send an e-mail to artoday@sarl.org.za.

The 706T DXpedition video is now available for free and can be downloaded from two different sites. The High Definition video can be found at <https://vimeo.com/61384528>, while the Standard Definition video is at www.intrepid-dx.com



HF Happenings



Visiting Europe this winter? Take in the DARC Ham Radio

The 64th Lake Constance and the Ham Radio 2013 Convention, both organised by Deutscher Amateur Radio Club will take place from Friday 28 June to Sunday 30 June 2013 in Friedrichshafen, Germany. This event has long been considered Europe's premiere amateur radio gathering with attendees from around the world. One of the highlights of this year's Ham Radio gathering will be an informal international meeting for representatives of IARU member societies. It will be held at the Zeppelin Museum on Friday 28 June. Event planners say that they will provide a shuttle bus that will take those attending from the exhibition halls to the museum.

More information on Ham Radio 2013 can be found at www.hamradio-friedrichshafen.de.

The closest airport to Friedrichshafen is Kloten at Zürich in Switzerland, from there you can take the train or hire a car. Remember the Schengen visa. There are a number of good hotels near the Messe or bring you camping gear!

Next Week's Contest

CLARA HF Contest, 17:00 UTC 19 March to 17:00 UTC 20 March, 17:00 UTC 23 March to 17:00 UTC 24 March	QRP Fox Hunt, 01:00 - 02:30 UTC 22 March
QRP Fox Hunt, 01:00 - 02:30 UTC 20 March	NCCC Sprint, 02:30 - 03:00 UTC 22 March
NAQCC Straight Key/Bug Sprint, 00:30 - 02:30 UTC 21 March	Nauryz DX Contest, 02:00 - 07:59 UTC 23 March
RSGB 80 m Club Championship, SSB, 20:00 - 21:30 UTC 21 March	UBA Spring SSB Contest, 07:00 - 11:00 UTC 24 March

History This Week for the week starting 11 March

1693 - Hackney cabs (horse-drawn taxis) were authorised for the first time in Glasgow, Scotland
1755 - Steam engine was first reported used in America, at a copper mine in New Barbados Neck
1781 - English astronomer William Herschel detected Uranus in the night sky, but he thought it was a comet.
1794 - Eli Whitney was issued a U.S. patented for his cotton gin.
1834 - The first U.S. railroad tunnel was completed between Hollidaysburg and Johnstown, Pennsylvania.
1839 - Sir John Herschel referred to "photography" in a lecture to the Royal Society
1898 - The first practical submarine was demonstrated by John Holland off Staten Island in New York for 100 minutes.
1899 - Count Ferdinand von Zeppelin was issued a US patent for his invention of his "Navigable Balloon."
1907 - A camera-carrying space rocket patent was issued to Alfred Maul, a German engineer
1919 - A wireless telephone was invented enabling air pilots to talk in flight.
2013 - St Patrick's Day celebrated all over the world

Items used with acknowledgement to The ARRL Letter, Amateur Radio Newsline, OPDX Bulletin, 425 DX Bulletin, DXNL Bulletin, ARRL DX News, WIA-News, the RSGB News and Southgate ARC News

HF_Happenings-subscribe@yahooagroups.com

